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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:00:54 ON 03 MAR 2004

=> file agricola biosis embase caplus
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'AGRICOLA' ENTERED AT 17:01:06 ON 03 MAR 2004

FILE 'BIOSIS' ENTERED AT 17:01:06 ON 03 MAR 2004
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=> s hemoglobin and seeds? and breeding
L1 2 HEMOGLOBIN AND SEEDS? AND BREEDING

=> d l1 1-2

L1 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:15341 CAPLUS
DN 132:60124
TI Nonsymbiotic plant ***hemoglobins*** to maintain cell energy status in
transgenic systems
IN Guy, Phillip; Duff, Stephen; Xianzhou, Nie; Hill, Robert; Durnin, Douglas;
Sowa, Aleksander
PA University of Manitoba, Can.
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000000597	A2	20000106	WO 1999-CA587	19990624
	WO 2000000597	A3	20000323		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,				

=> s hemoglobin and seeds? and selection
L2 1 HEMOGLOBIN AND SEEDS? AND SELECTION

=> d l2 1

L2 ANSWER 1 OF 1 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 94324312 EMBASE
DN 1994324312
TI Trace element nutrition during pregnancy.
AU Wada L.; King J.C.
CS Department of Nutritional Sciences, College of Natural Resources,
University of California, Berkeley, CA 94720, United States
SO Clinical Obstetrics and Gynecology, (1994) 37/3 (574-586).
ISSN: 0009-9201 CODEN: COGYAK
CY United States
DT Journal; Conference Article
FS 010 Obstetrics and Gynecology
017 Public Health, Social Medicine and Epidemiology
LA English
SL English

=> d l2 1 ab

L2 ANSWER 1 OF 1 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AB The best means to ensure an optimal intake of trace elements during pregnancy is the consumption of a well-balanced diet that includes both animal- and plant-food sources. Although vegetarian diets provide reasonable sources of trace elements, especially in dried beans and ***seeds***, flesh foods contain higher concentrations of trace elements that are in a more readily absorbable form. Iron is the only trace element for which routine supplementation is recommended. In the United States, the iodine content of the food supply is sufficiently high to make supplementation unnecessary, but use of iodized salt is not contraindicated. There is no need to screen pregnant women routinely for trace element status, except to monitor ***hemoglobin*** and hematocrit as an indicator of iron status. The best indicators that a woman's trace element status may be at risk is a history of poor food ***selections***; a clinical disorder that alters trace element use or excretion, or prior residence in a region of the world where the trace element content of the soil is low.

=> s hemoglobin and seed? and selection
L3 10 HEMOGLOBIN AND SEED? AND SELECTION

=> duplicate remove l3
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L3
L4 8 DUPLICATE REMOVE L3 (2 DUPLICATES REMOVED)

While the ***seed*** and the pollen carry species characters, they also transmit certain obscure properties which are peculiar to each of the sex elements; this was shown by differences in the offspring of reciprocal crosses. The germplasm is recognized as a stereochem. system. Such phenomena as sports, reversion, variation, and the genesis of strains, subspecies, and species are due to gradual and progressive changes and ultimate fixation; hybridization is probably the chief method in the genesis of species.

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=> s selection and seed and nonsymbiotic and hemoglobin
L5          0 SELECTION AND SEED AND NONSYMBIOTIC AND HEMOGLOBIN
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=>
=> seed(w)selection and breeding
SEED(W)SELECTION IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
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=> s seed(w)selection and breeding
L6          52 SEED(W) SELECTION AND BREEDING
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=> duplicate remove l6
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L6
L7          49 DUPLICATE REMOVE L6 (3 DUPLICATES REMOVED)
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=> d l7 1-10 ti
```

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L7  ANSWER 1 OF 49  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI  Selection for large seed and high protein in two- and three-parent soybean
    populations.
```

```
L7  ANSWER 2 OF 49  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
    DUPLICATE 1
TI  Genetic effects on grain shape traits of indica black pericarp rice and
    their genetic correlations with main mineral element contents in grains.
```

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L7  ANSWER 3 OF 49  CAPLUS  COPYRIGHT 2004 ACS on STN
TI  System for functional gene discovery in plants using multigeneration
    ***breeding*** with database tracking of phenotypes
```

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L7  ANSWER 4 OF 49  CAPLUS  COPYRIGHT 2004 ACS on STN
TI  Non-random selection of livestock and crops and tissue products in
    ***breeding*** for uniformity using phenomics and bioinformatics
```

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L7  ANSWER 5 OF 49  CAPLUS  COPYRIGHT 2004 ACS on STN
TI  Selection for high seed oil content in soybean families derived from
    plants regenerated from protoplasts and tissue cultures
```

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L7  ANSWER 6 OF 49  CAPLUS  COPYRIGHT 2004 ACS on STN
TI  Selection of soybean mutants with increased concentrations of seed
    methionine and cysteine
```

```
L7  ANSWER 7 OF 49  CAPLUS  COPYRIGHT 2004 ACS on STN
```

cultivar Idared, through parthenogenesis in situ.
 AU De Witte, Krista; Keulemans, Johan
 CS Fruitteeltcentrum K.U. Leuven, Willem de Croylaan 42, B-30001
 Leuven-Heverlee, Belgium
 SO Euphytica, (1994) Vol. 77, No. 1-2, pp. 141-146.
 CODEN: EUPHAA. ISSN: 0014-2336.
 DT Article
 LA English
 ED Entered STN: 25 Jan 1995
 Last Updated on STN: 25 Jan 1995

=> FIL STNGUIDE		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	93.91	94.12
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.08	-2.08

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 AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Feb 27, 2004 (20040227/UP).

=> s single(w)seed(w)descent
 221 SINGLE
 0 SEED
 0 DESCENT
 L8 0 SINGLE(W)SEED(W)DESCENT

=> file agricola biosis embase caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.12	94.24
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.08

FILE 'AGRICOLA' ENTERED AT 17:31:22 ON 03 MAR 2004

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L10 ANSWER 3 OF 341 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 AB This paper reviews some measurements of representativeness such as the effective population size (N_e) useful in genetic resources conservation and plant breeding research. Some easy-to-use expressions for estimating N_e in a number of practical conditions are given. For the case of several subpopulations, N_e is scarcely influenced by the total inbreeding. Thus, N_e becomes mostly dependent on the allelic diversity among subpopulations and the number of subpopulations sampled. When, under natural conditions, levels of interpopulation allelic divergence are low, it is misleading to believe that a small number of subpopulations will be sufficient to attain adequate effective population sizes. When a single population is considered and seeds being sampled have a family structure, at the limit N_e depends only on the number of seed parents and the coancestry coefficient among sibs within families. Accession regeneration is the case where the reference population is of finite size. Gametic control is a major factor in regeneration. The loss of up to 20% of seeds may be recovered in terms of N_e when female gametic control is applied. This is not attainable with random sampling of seeds. When studying N_e in recurrent selection schemes, results showed that the gain in N_e through gametic control is very small when selection is intensive. When comparing effective population sizes for the ***single*** ***seed*** ***descent*** (SSD) method versus the bulk system, results showed that SSD maintains genetic drift at a low level and offers a much better protection against random loss of alleles during selfing generations. Estimating population parameters, through codominant genetic markers is fundamental for obtaining reliable estimates of effective population size.

=> s single(w)seed(w)descent and selection and trait and breeding

L11 52 SINGLE(W) SEED(W) DESCENT AND SELECTION AND TRAIT AND BREEDING

=> duplicate remove l11

DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L11

L12 38 DUPLICATE REMOVE L11 (14 DUPLICATES REMOVED)

=> d l12 1-15

L12 ANSWER 1 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 DUPLICATE 1

AN 2003:578040 BIOSIS

DN PREV200300582830

TI Mapping QTL for ***traits*** associated with resistance to ferrous iron toxicity in rice (*Oryza sativa* L.), using japonica chromosome segment substitution lines.

AU Wan Jian-Lin [Reprint Author]; Zhai Hu-Qu; Wan Jian-Min [Reprint Author]; Yasui, Hideshi; Yoshimura, Atsushi

CS State Key laboratory of Crop Genetics and Germplasm Enhancement, Jiangsu Plant Gene Engineering Research Center, Nanjing Agricultural University, Nanjing, 210095, China
 wanjm@mail.njau.edu.cn

SO Acta Genetica Sinica, (Oct 2003) Vol. 30, No. 10, pp. 893-898. print.
 ISSN: 0379-4172 (ISSN print).

DT Article

SSD, 34.5% of the original population was lost due to barrenness at the high density in 1 cross and 26.5% in the other. Seed of surviving genotypes was increased for a replicated field trial where maturity (days after 1 June), plant height (cm) oil content (NMR value), and grain yield (g/hill plot) were measured. Means and variances between progenies advanced under high or low densities generally did not differ for any of the ***traits***, leading to the conclusion that the genotypes eliminated due to barren plants were randomly and not selectively eliminated due to ***selection*** pressures of the technique.

L12 ANSWER 38 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 AB Heredity of a few ***traits*** relevant to plant development and assimilation area was studied in Toulouse, France, in 2 independent non-selected hybrid populations segregating in F3 and F4. Both generations were grown related to each other, as well as to the initial F2, by ***single*** ***seed*** ***descent***. The F4 material was also analyzed on a plant mean basis in 2 replicated rows at normal planting density. For both populations as isolated plants, heritability values were consistently high (0.32-0.70) for leaf area and earliness. They were low (< 1) for 2nd development phase duration and weight per seed. The 2 populations did not differ much from each other, except for the heritability size of the various characters. When the F4 was grown under conditions of plant competition, the heritability values remained roughly the same, but for the number of pods per plant it slightly decreased. The expected genetic progress resulting, at normal density, from a ***selection*** performed among spaced plants, showed more spread differences between characters, with total similarity between both families. The more responsive ***trait*** was leaf area, followed by yield. Although the 2 characters are positively correlated, it is possible to associate, in a ***breeding*** program, an improved yield with a moderate leaf area, that is recommendable in the climatic conditions of France.

=> s l12 and protein

L13 4 L12 AND PROTEIN

=> d l13 1-4 ibib ab

L13 ANSWER 1 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
 (2004) on STN

ACCESSION NUMBER:	2000:31462 AGRICOLA
DOCUMENT NUMBER:	IND22034394
TITLE:	Agronomic performance of lines derived from anther culture, maize pollination and ***single*** - ***seed*** ***descent*** in a spring wheat cross.
AUTHOR(S):	Ma, H.; Busch, R.H.; Riera-Lizarazu, O.; Rines, H.W.; Dill-Macky, R.
CORPORATE SOURCE:	University of Minnesota, St. Paul, MN.
AVAILABILITY:	DNAL (442.8 Z8)
SOURCE:	Theoretical and applied genetics, Aug 1999. Vol. 99, No. 3/4. p. 432-436 Publisher: Berlin; Springer-Verlag CODEN: THAGA6; ISSN: 0040-5752

Concomitant with our QTL identification and manipulation efforts are several ongoing expts. based on functional genomics. We are convinced that emerging technologies based on gene expression have the potential to provide complementary information that will promote more efficient germplasm improvement. Indeed, understanding the genetic basis of the essential physiol. parameters of drought tolerance in maize, together with the data generated by profiling expts., should allow the identification of the key pathways involved in drought stress and further our understanding of how they interact. This, in turn, will lead to develop strategies to improve the tolerance of maize and other crops to water-limited conditions.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> protein(w)content and seed and selection and breeding and plant
PROTEIN(W)CONTENT IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s protein(w)content and seed and selection and breeding and plant
L14 281 PROTEIN(W) CONTENT AND SEED AND SELECTION AND BREEDING AND PLANT

=> s l14 and barley
L15 17 L14 AND BARLEY

=> duplicate remove l15
DUPLICATE PREFERENCE IS 'BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L15
L16 17 DUPLICATE REMOVE L15 (0 DUPLICATES REMOVED)

=> d l16 1-10 ti

L16 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
TI High protein phenotype-associated ***plant*** genes and their use for
generating transgenic ***plants*** with improved nutritional
properties

L16 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
TI ***Barley*** malting quality and yield interrelationships and the
effect on yield distribution of ***selection*** for malting quality in
the early generations

L16 ANSWER 3 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A synthetic hexaploid (2n = 42) oat from the cross of Avena strigosa (2n =
14) and domesticated A. magna (2n = 28).

L16 ANSWER 4 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ***Protein*** ***content*** heritability in ***selection*** of
barley based on intraplant variation in kernel anatomical
structure.

L16 ANSWER 5 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ***Selection*** of Dry pea (Pisum sativum) varieties and their
performance by comparison with ***barley*** and wheat in Mediterranean

protein ***content*** . However, some differences in
 protein ***content*** were significant, e.g. grains 11, 15,
 and 17 contained 12, 13-8, and 15.7% protein, resp. Grains of the KM-1192
 cultivar and its F1 and F2 hybrids pollinated by Hyproly contained
 8.7-12.4, 9.3-11.0, and 6.9-12.4% protein, resp. Thus, the variability
 increased in F2, whereas in F1 it resembled that of the mother cultivar.

=> single(w)trait(w)variabililty and protein and seed and barley and selection
 SINGLE(W)TRAIT(W)VARIABILILTY IS NOT A RECOGNIZED COMMAND
 The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter
 "HELP COMMANDS" at an arrow prompt (=>).

=> s single(w)trait(w)variabililty and protein and seed and barley and selection
 L17 0 SINGLE(W) TRAIT(W) VARIABILILTY AND PROTEIN AND SEED AND BARLEY
 AND SELECTION

=> s single(w)trait(w)variabililty and protein and seed and selection
 L18 0 SINGLE(W) TRAIT(W) VARIABILILTY AND PROTEIN AND SEED AND SELECTIO
 N

=> s single(w)trait(w)variabililty and seed and selection
 L19 0 SINGLE(W) TRAIT(W) VARIABILILTY AND SEED AND SELECTION

=> s single(w)trait(w)variability and seed and protein and selection
 L20 0 SINGLE(W) TRAIT(W) VARIABILITY AND SEED AND PROTEIN AND SELECTIO
 N

=> s single(w)trait and seed and protein and selection
 L21 1 SINGLE(W) TRAIT AND SEED AND PROTEIN AND SELECTION

=> d l21 ibib ab

L21 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 ACCESSION NUMBER: 1997:242957 BIOSIS
 DOCUMENT NUMBER: PREV199799542160
 TITLE: ***Selection*** for yield, ***protein*** , and oil
 in soybean crosses between adapted and introduced parents.
 AUTHOR(S): Scott, Roy A. [Reprint author]; Kephart, Kevin D.
 CORPORATE SOURCE: Plant Sci. Dep., South Dakota State Univ., Box 2140C, NPB
 247, Brookings, SD 57007, USA
 SOURCE: Field Crops Research, (1997) Vol. 49, No. 2-3, pp. 177-185.
 ISSN: 0378-4290.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 ENTRY DATE: Entered STN: 13 Jun 1997
 Last Updated on STN: 13 Jun 1997

AB Soybean (Glycine max (L.) Merr.) breeders can sometimes increase genetic
 variability in their germplasm through wide crosses with plant
 introduction (PI) material, and in that way lead to slow progress in
 developing high-yielding cultivars. A study was conducted to evaluate the
 potential of crosses of adapted times introduced soybean lines for
 improving yield and ***protein*** and oil concentrations. Five
 soybean cultivars adapted to South Dakota were crossed in selected
 combinations with four PI lines to develop F-3-derived lines. The adapted
 and PI lines were selected for wide variation in ***protein*** and oil